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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,090	06/27/2003	Joseph Gan	42931B	7578
109	7590	12/21/2005	EXAMINER	
THE DOW CHEMICAL COMPANY INTELLECTUAL PROPERTY SECTION P. O. BOX 1967 MIDLAND, MI 48641-1967			SELLERS, ROBERT E	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/609,090

Applicant(s)

GAN ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-25 is/are pending in the application.
- 4a) Of the above claim(s) 18-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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1. The election with traverse of Group I in the non-Final rejection mailed June 7, 2005 is acknowledged. The traversal is on the ground that both Groups I and II relate to electrical circuits and should be searchable together. This is not found persuasive because the fiber-reinforced composite of Group I is a structurally distinct product from the electric circuit of Group II and is usable other than as composite for an electrical circuit, such as a laminated molded vehicle part.

The requirement is still deemed proper and is therefore made FINAL.

This application contains claims 18-25 drawn to inventions nonelected with traverse in the non-Final rejection. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144 and MPEP § 821.01).

2. The 35 U.S.C. 112, second paragraph, rejection is withdrawn in response to the deletion of the repetitive phrase and the insertion of the basis for the amount of crosslinker in independent claim 1.

The text of section 103(a) of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent No. 458,502 and PCT Publication NO. 96/12751 in view of Schutyser et al. Patent No. 5,821,305 and Japanese Patent Nos. 9-25349 and 9-194610 and Soviet Union Patent No. 448,742.

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Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schutyser et al., Japanese '349 and '610 in view of the European patent and PCT publication.

The rejections are maintained for the reasons of record set forth in the non-Final rejection mailed June 7, 2005. The arguments filed December 7, 2005 have been considered but are unpersuasive.

3. The European patent discloses curing agent "known to the skilled artisan to react with polyepoxides (page 11, lines 41-42)" including anhydrides (page 11, lines 45 and 49-52). Therefore, the European patent is open to anhydride-functional curing agents in general which encompass the 58.6 phr of styrene-maleic anhydride copolymers of Schutyser et al. (col. 1, lines 51-52), the 41 phr of copolymer of Japanese '349 (page 6, paragraph 33 and paragraph 36, Example 4), the 49% by weight of copolymer of Japanese '610 (page 6, paragraph 35 and paragraph 38, Example 4) and from 5-95% by weight of copolymer set forth in the Soviet Union patent.
4. One skilled in the art would employ the styrene-maleic anhydride copolymers of Schutyser et al. and Japanese and Soviet Union patents as the anhydride curing agent of the European patent in order to increase the T<sub>g</sub> (Schutyser et al., col. 1, lines 18-21), improve the dielectric properties (Japanese '349, page 4, paragraph 20 and Japanese '610, page 3, paragraph 17) and enhance the adhesion, non-deformation and thermal stability (Soviet Union patent abstract).

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5. In response to arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references (In re Keller, 208 USPQ 871, CCPA 1981 and In re Merck & Co., 231 USPQ 375, Federal Circuit 1986).

6. In response to the argument that the conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper (In re McLaughlin, 170 USPQ 209, CCPA 1971).

7. The evidence presented in Table I on page 48 of the specification as well as Table 3 on page 51 are deficient for the reasons for record espoused in the non-Final rejection on pages 9-10, paragraphs 15 and 16. The declaration filed August 28, 2002 in parent application no. 09/008,983 has not been made of record in the instant application. Even if eventually submitted, it is unconvincing for the reasons presented on page 9, paragraph 14 of the non-Final rejection.

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8. Any showings must address the closest prior art composition of European patent in Example 8 on page 22 wherein a diglycidyl ether of bisphenol A, a complex of boric acid and 2-methylimidazole complex and dicyandiamide is formulated.

9. The evidence must be commensurate in scope with the claims with respect to the complex wherein the catalyst embraces such materially different species as phosphonium and ammonium complexes, alkyl monoamines, epoxy resin-amine adducts along with the tested imidazole (specification, page 31, line 14 to page 36, line 20). The broadly defined cure inhibitor of the complex includes such myriad compounds as alkyl boranes, mineral acids having a nucleophilicity of between zero and 2.5, and organic acids possessing a pKa of from 1 to 3 along with the represented boric acid (In re Clemens, 206 USPQ 289, 296, CCPA 1980; In re Peterson, 65 USPQ2d 1379, 1382-1385, Federal Circuit 2003 and In re Grasselli, 218 USPQ 769, 777, Federal Circuit 1983 and MPEP § 706.02(d)).

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**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Robert Sellers  
Primary Examiner  
Art Unit 1712

rs  
12/14/2005